

**Remarks**

**Preliminary Matters**

Claims 1-2, and 4-21 are presented for reconsideration. Claims 1, 2, 4, 7, 10-12 and 15 have been amended. Reconsideration is respectfully requested.

**Rejections Under 35 U.S.C. § 112**

Claims 1, 2 and 4-21 were rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement of the term "original socket" as used in the claims. While disagreeing with the grounds of rejection, Applicant has amended claims 1, 2, 4, 7, 10-12 and 15 to use the term "client connection socket," which is supported literally in the specification. (See particularly paragraphs 0037 and 0039 in US 2005/0149529, the published version of this application.) In view of this amendment, claims 1, 2 and 4-17 are believed to meet the requirements of 35 U.S.C. § 112.

Applicant respectfully traverses the rejection of claims 18-21. These claims make no mention of an "original socket." The rejection of claims 18-21 therefore appears to be in error and should be withdrawn.

**Rejections Under 35 U.S.C. § 103**

Claims 1, 2 and 4-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Gobin et al., U.S. Patent No. 6,745,229 (Gobin), in view of Austin, U.S. Patent No. 6,370,569 (Austin). Applicant respectfully traverses this rejection.

Claim 1 recites a method for downloading data in which a connection, comprising a client connection socket, is established between a client and a server. Upon receiving a download request from the client, a copy of the client connection socket is constructed and used in maintaining an open connection with the client, while the client connection socket itself is closed. The copy of the client connection socket is enqueued with copies of other sockets and is then used in servicing the client request.

In rejecting claim 1, the Examiner conceded that Gobin does not disclose (a) constructing a copy of a socket, (b) maintaining an open connection between the client and the server via the copy of the socket, (c) closing the socket, and (d) enqueueing the copy of the socket with copies of other sockets in a queue to await service by a download manager. Rather, the Examiner held these steps to be disclosed by Austin, in col. 15, lines 6-16, referring to steps 430, 432 and 434 in Austin's Fig. 5A. The Examiner, however, made no evident attempt to identify specifically the elements of Austin's disclosure that correspond to each of the claim elements (a) - (d) listed above.

MPEP 2143.03 states clearly:

All Claim Limitations Must Be Taught or Suggested

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

The Examiner simply has not met this burden. The cited passage in Austin describes a method in which a Data Socket client attempts to connect to a Data Socket server identified by a certain URL. If the connection is established, the client sends a command to the server with relation to a specific tag. The server may then take certain actions. None of the actions of either the client or the server, however, involve creating a copy of an existing socket, closing the socket while maintaining an open connection via the copy, or enqueueing a copy of a socket. Austin fails to teach or suggest anything that even remotely approximates these steps, whether in the passage cited by the Examiner or in any other part of his disclosure. Thus, the Examiner has failed to make a *prima facie* case of obviousness against claim 1.

Furthermore, creating a copy of a socket, as recited in claim 1, is fundamentally different from simply opening a new socket, since the client is unaffected by this operation even when the original socket is closed (as explained, for example, in paragraph 0040 of the present patent application).

Therefore, claim 1 patentable over the cited art. In view of the patentability of claim 1, dependent claims 2 and 4-9 are also believed to be patentable.

Independent claim 10 recites a computer software product, which causes a computer to perform a set of steps similar to the method of claim 1. Claim 10 is therefore believed to be patentable, as well, for the reasons explained above, as are claims 11-17, which depend from claim 10.

Independent claim 18 recites a system for downloading information, which comprises a server connectable to a plurality

of clients via blocking sockets. The server associates each client download request with respective copies of the blocking sockets and maintains open connections with the clients using the socket copies. A download manager enqueues the download requests and socket copies and forces conversion of the copies to non-blocking sockets, whereupon the blocking sockets are closed. The download manager uses the non-blocking sockets in servicing the download requests.

Thus, the system of claim 18 performs functions similar to the steps of the method of claim 1 that are outlined above. As explained above, the cited art neither teaches nor suggests these functions.

Furthermore, the apparatus of claim 18 performs the additional function of converting copies of blocking sockets to non-blocking sockets. The Examiner did not relate to this feature of the claim in his rejection of claim 18. In regard to claims 2 and 12, the Examiner maintained that Gobin discloses conversion of blocking to non-blocking sockets in col. 7, lines 47-56. The cited passage does indeed refer to blocking sockets. It says nothing whatsoever, however, about making copies of the sockets or converting these copies to non-blocking sockets, as recited in claim 18. Austin likewise fails to teach or suggest conversion of blocking sockets to non-blocking.

Therefore, claim 18 is also patentable over the cited art, as are claims 19-21, which depend from claim 18.

**Dependent claims.**

Notwithstanding the patentability of the independent claims, as explained above, the dependent claims in this application also recite independently-patentable subject matter. A number of examples are set forth below:

Dependent claims 2, 12 and 21 are directed to forcing conversion of the copy of the socket to a non-blocking socket. As explained above, Gobin does not disclose copying a socket. In (col. 7, lines 45-56), Gobin describes three sockets. At line 57, Gobin states that all three of the sockets described block, but he does not mention conversion of any of these sockets to non-blocking sockets. In regard to this point (item B, on the lower part of page 6 in the Official Action), the Examiner also referred to col. 3, lines 1-4, in Gobin. This passage, however, says merely that web servers support secure socket connections with clients and does not relate in any way to blocking or unblocking of the sockets. Therefore, claims 2, 12 and 21 are independently patentable.

Dependent claims 8 and 16 are directed to a technique for scaling the load on the server, thereby increasing the capability of a server to process more connections concurrently that would otherwise be allowed. These claims include duplicating (spawning) the download manager, forming a new queue, and handling new connections in one of the duplicates. None of this is found in Gobin. The text in Gobin noted by the Examiner (col. 2, lines 50-67) is a high-level description of a system. The system includes a "dispatcher for receiving encrypted transactions from the web servers and dispatching them to specific application servers, and more specifically, to the online invoicing server" (col. 5,

lines 28-29; Fig. 2). Applicant is unable to find any mention anywhere in Gobin of creating multiple executing instances of the dispatcher. Therefore, claims 8 and 16 are independently patentable.


Dependent claims 9, 17, 21 are directed to multi-threaded embodiments in which different threads are used for client connections and the download manager, using non-blocking I/O. As noted above, all the sockets shown in Gobin block. Furthermore, Gobin is completely silent on the issue of threads. These elements are lacking in Gobin and in the case of non-blocking I/O, even contrary to the disclosure of Gobin. Therefore, claims 9, 17 and 21 are independently patentable.

#### **Concluding Matters**

It is believed that the amendments and remarks presented hereinabove are fully responsive to all the grounds of rejection and objections raised by the Examiner, and that the Application is now in order for allowance.

Please charge any fees which may be due and which have not been submitted herewith to our Deposit Account No. 01-0035.

Respectfully submitted,

  
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